

09/611,383

-3-

Amendments to the Claims

Please cancel Claims 3 and 58. Please amend Claims 1, 4, 5, 10, 13, 56, 59 and 82-84.
The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (currently amended) A DC to DC power converter which delivers an output voltage and an output current at its output terminals, the converter comprising:
a controlled rectifier transistor through which current flows to the output terminals;
a control circuit which controls the output voltage; and
override control to the control circuit, responsive to a condition of the power converter or connected circuitry, that increases the output voltage to effect a minimum current limit of the output current at the output terminals.
2. (previously presented) A power converter as claimed in claim 1 wherein the override control substantially eliminates negative current flow through the controlled rectifier.
3. (canceled)
4. (currently amended) A power converter as claimed in claim ~~[[3]]~~ 1 wherein the override control effects a fold-back or fold-forward minimum current limit.
5. (currently amended) A power converter as claimed in claim ~~[[3]]~~ 1 wherein the condition to which the override control responds is a signal indicative of output current.
6. (original) A power converter as claimed in claim 5 wherein the override control responds directly to sensed output current.
7. (previously presented) A power converter as claimed in claim 5 wherein the signal indicative of output current is a sensed current within the power converter.

09/611,383

-4-

8. (original) A power converter as claimed in claim 7 wherein the signal indicative of output current is a sensed current through a controlled rectifier in the power converter.
9. (original) A power converter as claimed in claim 8 wherein the signal indicative of output current is a current through an ORing transistor coupled to the output of the power converter.
10. (currently amended) A power converter as claimed in claim [[3]] 1 further comprising disabling at least one controlled rectifier in the power converter circuit in response to decision logic.
11. (original) A power converter as claimed in claim 10 wherein the at least one controlled rectifier which is disabled is an ORing transistor at the output of the power converter.
12. (previously presented) A power converter as claimed in claim 1 wherein the minimum current limit is a negative current.
13. (currently amended) A power converter as claimed in claim [[3]] 1 further comprising:
 - first and second primary transformer windings connected to a power source;
 - a secondary transformer winding circuit having at least one secondary winding coupled to at least one of the first and second primary windings;
 - plural controlled rectifiers, each having a parallel uncontrolled rectifier and each connected to a secondary winding, each controlled rectifier being turned on and off in synchronization with the voltage waveform across a primary winding to provide the output, each primary winding having a voltage waveform with a fixed duty cycle and transition times which are short relative to the on-state and off-state times of the controlled rectifiers; and
 - a regulator which regulates the output while the fixed duty cycle is maintained.

14-55. (canceled)

09/611,383

-5-

56. (currently amended) A method of converting DC to DC power comprising:
providing a controlled rectifier transistor through which current flows to the output terminals;
controlling an output voltage through a control circuit; and
overriding control to the control circuit to increase the output voltage to effect a minimum current limit of output current at the output terminals.
57. (original) A method as claimed in claim 56 wherein negative current flow through a controlled rectifier is substantially eliminated.
58. (canceled)
59. (currently amended) A method as claimed in claim ~~58~~ 56 wherein the override is in response to a signal indicative of output current.
- 60-76. (canceled)
77. (previously presented) A method as claimed in claim 56 wherein the minimum current limit is a negative current.
78. (previously presented) A method as claimed in claim 56 wherein the minimum current limit is effected by controlling duty cycle of a regulating transistor to control voltage output that effects the minimum current limit.
79. (previously presented) A method as claimed in claim 56 wherein the minimum current limit is effected without disabling the controlled rectifier transistor.
80. (previously presented) A power converter as claimed in claim 1 wherein the override control circuitry controls duty cycle of a regulating transistor to control voltage output that effects the minimum current limit.
81. (previously presented) A power converter as claimed in claim 1 wherein the minimum

09/611,383

-6-

current limit is effected without disabling the controlled rectifier transistor.

82. (currently amended) A method of converting DC to DC power comprising:
providing a controlled rectifier transistor through which output current flows;
controlling an output voltage through a control circuit; and
overriding control to the control circuit to increase the output voltage to effect a negative minimum current limit of the output current flowing through the controlled rectifier transistor.
83. (currently amended) A DC to DC power converter having an output comprising:
a controlled rectifier transistor through which output current flows;
a control circuit which controls an output voltage; and
override control to the control circuit, responsive to a condition of the power converter or connected circuitry, that increases the output voltage to effect a negative minimum current limit of the output current flowing through the controlled rectifier transistor.
84. (currently amended) A DC to DC power converter comprising:
a controlled rectifier transistor through which output current flows;
means for controlling an output voltage through a control circuit; and
means for overriding control to the control circuit to increase the output voltage to effect a minimum current limit of the output current.